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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,718	12/16/2003	James J. Genova	213680.00007	3456
27160	7590	08/09/2005	EXAMINER	
KATTEN MUCHIN ROSENMAN LLP 525 WEST MONROE STREET CHICAGO, IL 60661-3693				PHAM, LAM P
		ART UNIT		PAPER NUMBER
				2636

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/735,718	GENOVA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Lam P. Pham	2636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 16 December 2003.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-67 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-6,8-23,25-39,41-56 and 58-67 is/are rejected.  
 7) Claim(s) 7,24,40 and 57 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
     1. Certified copies of the priority documents have been received.  
     2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
     3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/21/2004</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4, 6, 8, 9, 10, 16, 18-21, 23, 25-29, 35-37, 39, 41-43, 49-50, 52-54, 56 and 58-62 rejected under 35 U.S.C. 103(a) as being unpatentable over **Deacy** (US 2005/0083205 A1) in view of **Kaufman** (US 6545608).

**Regards claim 1,** Deacy discloses a fire-sensing apparatus, comprising:

a smoke sensor (22) for detecting a presence of smoke within a volume;  
a tamper sensor (30) for detecting tampering to the apparatus, wherein the tampering prevents the apparatus from detecting the presence of smoke within the volume; and

an alarm indicator (LED's 46-48 or speaker 54) for indicating an alarm condition in response to at least one of i.) a detection of the presence of smoke within the volume, and ii.) a detection of tampering to the apparatus as seen in Figures 1-3; [0017] to [0027].

Deacy fails to disclose the apparatus comprising a flame sensor for detecting the presence of a flame within the volume.

However, it has been known in the art of fire sensing to have both the flame sensor and smoke sensor in the same housing for detecting a fire that produces both

flame and smoke in a volume as seen in the abstract of "Flame and smoke detector" of Sivathanu et al. (US 6111511).

In addition, Kaufman in "Smoking rules enforcement apparatus" teaches of a smoke detector (90) and flame detector (28) in the same housing for sensing a fire and alarm indicator for indicating alarm conditions at a remote location as seen in Figures 7-8; col. 4, lines 41-67; col. 5, lines 1-17.

Thus, it would have been obvious to one of ordinary skilled in the art to incorporate a flame sensor into the apparatus of Deacy for detecting both a flame within a volume and an alarm indicator for indicating the presence of a flame in addition to the alarm conditions above.

**Regards claim 2,** Kaufman discloses the flame sensor detects ultraviolet energy generated by flame to detect the presence of flame within the volume as seen in Figure 8; col. 4, lines 64-67 and col. 5, lines 11-5.

**Regards claim 3,** Kaufman discloses the flame sensor has an absence of sensitivity to electromagnetic radiation that normally occurs within the volume except from the flame as seen in col. 1, lines 51-60.

**Regards claim 4,** Deacy discloses a smoke sensor for detecting a presence of smoke within the volume, wherein the alarm indicator indicates the alarm condition in response to a detection of the presence of smoke within the volume as seen in claim 1.

**Regards claim 6,** Deacy discloses the tamper sensor comprises:  
a visible light sensor, wherein an absence of visible light to the visible light sensor is indicative of an attempt to tamper with the apparatus as seen in [0018].

**Regards claim 8,** Deacy disclose the alarm indicator indicates the alarm condition to persons within a vicinity of the apparatus using at least one of an audible alarm (54), a visual alarm (46-48) as seen in [0021] and [0023].

**Regards claim 9,** Deacy disclose the link between the detector units (10) and control panel (34) via a wired link or wireless link (radio) for remote indication. Thus, it would have been obvious to one of ordinary skilled in the art to have a transmitter for transmitting the alarm condition to a remote monitor for wireless link as well known in the art.

**Regards claim 10,** Deacy discloses the receipt of the alarm condition by the remote monitor generates at least one of an audible alarm, a visual alarm at a location of the remote monitor to indicate the alarm condition to the remote monitor as seen in Figure 2; [0021].

**Regards claim 16,** Deacy fails to disclose the apparatus has an appearance of an object used for different purpose within the volume, to camouflage the apparatus.

Kaufman disclose a camouflage for camouflaging an appearance of the apparatus wherein the camouflage provides the apparatus with the appearance of an object (sprinkler unit 10, mock room deodorizer 50, vent frame, smoke detector 90) used for a different purpose within the volume as seen in Figures 1-7; col. 2, lines 50-67; col. 3, lines 1-67; col. 4, lines 1-57.

In view of Kaufman teaching, it would have been obvious to one of ordinary skilled in the art to camouflage the apparatus or the sensing unit as a different object in order to deceive a person attempt to defeat the function of the sensing unit.

**Regards claim 18,** Deacy discloses the apparatus is positioned within the volume such that the apparatus monitors substantially an entire contents of the volume.

**Regards claim 19,** Deacy-Kaufman combined teaching disclose a fire-sensing system, comprising:

a fire sensor (flame sensor 28, smoke sensor 22) for detecting a presence of at least one of flame and smoke within volume;

tamper countering structure (optical intrusion detector 30) for countering attempts to prevent the fire sensor from detecting the presence of the at least one of flame and smoke within the volume; and Deacy disclose the link between the detector units (10) and control panel (34) via a wired link or wireless link (radio) for remote indication. Thus, it would have been obvious to one of ordinary skilled in the art to have a transmitter (wireless link of Deacy as seen in claim 9) for transmitting an alarm notification upon detection of at least one of i.) the presence of at least one of flame and smoke within the volume, and ii.) an attempt to prevent the fire sensor from detecting the presence of the at least one of flame and smoke within the volume as seen in Figures 1-3; [0017] to [0027] of Deacy and in Figures 7-8; col. 4, lines 41-67; col. 5, lines 1-17 of Kaufman and explanation of claims 1, 9.

**Regards claim 20,** Deacy-Kaufman teaching disclose the fire sensor comprises: a flame sensor (28) for detecting ultraviolet energy generated by flame to detect the presence of flame within the volume; and a smoke sensor (22) for detecting the presence of smoke within the volume as seen in explanation for claims 1-2.

**Regards claim 21,** Kaufman discloses the flame sensor has an absence of sensitivity to electromagnetic radiation that normally occurs within the volume except from the flame as seen in col. 1, lines 51-60.

**Regards claim 23,** Deacy discloses the tamper countering structure comprises: a visible light sensor, wherein an absence of visible light to the visible light sensor is indicative of an attempt to tamper with the apparatus as seen in [0018].

**Regards claim 25,** Kaufman discloses the tamper countering structure comprises:

camouflage for camouflaging an appearance of the system, wherein the camouflage provides the system with the appearance of an object (sprinkler unit 10, mock room deodorizer 50, vent frame, smoke detector 90) used for a different purpose within the volume as seen in Figures 1-7; col. 2, lines 50-67; col. 3, lines 1-67; col. 4, lines 1-57.

**Regards claim 26,** Deacy and Kaufman fail to disclose expressly the tamper countering structure comprises:

a shock-resistant enclosure for the system for protecting the system against shock.

It has been known that a typical sensor housing withstand a certain amount of shock applied as a matter of design choice, thus it would have been obvious to one of ordinary skilled in the art to have a shock-resistant enclosure for countering tampering attempt to damage the sensor.

**Regards claim 27,** Deacy-Kaufman disclose the transmitter transmits the alarm notification to persons within a vicinity of the system using at least one of an audible alarm, a visual alarm at the control panel as seen in [0021] and [0023].

**Regards claim 28,** Deacy disclose the link between the detector units (10) and control panel (34) via a wired link or wireless link (radio) for remote indication. Thus, it would have been obvious to one of ordinary skilled in the art to have a transmitter for transmitting the alarm condition notification to a remote monitor for wireless link as well known in the art.

**Regards claim 29,** Deacy discloses the receipt of the alarm condition by the remote monitor generates at least one of an audible alarm, a visual alarm at a location of the remote monitor to indicate the alarm condition to the remote monitor as seen in Figure 2; [0021].

**Regards claim 35,** referring to claim 1 for explanation.

**Regards claim 36,** referring to claim 3 for explanation.

**Regards claim 37,** referring to claim 4 for explanation.

**Regards claim 39,** referring to claim 6 for explanation.

**Regards claim 41,** referring to claim 8 for explanation.

**Regards claim 42,** referring to claim 9 for explanation.

**Regards claim 43,** referring to claim 10 for explanation.

**Regards claim 49-50,** referring to claim 16 for explanation.

**Regards claim 52,** referring to claim 18 for explanation.

**Regards claim 53,** referring to claim 19 for explanation.

**Regards claim 54**, referring to claim 21 for explanation.

**Regards claim 56**, referring to claim 23 for explanation.

**Regards claim 58**, referring to claim 25 for explanation.

**Regards claim 59**, referring to claim 26 for explanation.

**Regards claim 60**, referring to claim 27 for explanation.

**Regards claim 61**, referring to claim 28 for explanation.

**Regards claim 62**, referring to claim 29 for explanation.

3. Claims 5, 17, 22, 38, 51, 55 rejected under 35 U.S.C. 103(a) as being unpatentable over **Deacy** in view of **Kaufman** and **Rodhall et al.** (US 5463595).

**Regards claim 5**, Deacy discloses the tamper sensor comprises an optical sensor (30) but fails to disclose the tamper sensor comprises a motion sensor for detecting motion to the apparatus.

It has been known in the art to use shock or motion sensors for detecting tampering to a housing or structure of a sensing device or apparatus.

Rodhall et al. in "Portable security system for outdoor sites" teach of using a motion sensor (14) and shock sensor (88) for detecting tampering with the portable alarm unit (10) as seen in Figures 1, 3; col. 7, lines 61-67.

In view of Rodhall teaching, it would have been obvious to one of ordinary skilled in the art to alternatively incorporate the motion or shock sensors into the fire sensing apparatus of Deacy-Kaufman in order to provide effective mechanism for detecting tampering with the apparatus.

**Regards claim 17,** Deacy fails to disclose expressly the apparatus is resistant to shock, wherein shock to the apparatus is indicative of an attempt to tamper with the apparatus.

However, it has been known in the art that every sensor or detector housing is resistant to certain level of shock or vibration.

Rodhall teach of using a shock sensor (88) in the portable intrusion sensor unit for detecting tampering with the unit as seen in figure 3; col. 7, lines 61-67.

In view of Rodhall teaching, it would have been obvious to one of ordinary skilled in the art to implement a shock sensor for sensing a shock applied to the apparatus for indicating an attempt to tamper with the apparatus.

**Regards claim 22,** Deacy discloses the tamper countering structure comprises an optical sensor (30) but fails to disclose the structure comprises a motion sensor for detecting motion to the apparatus, wherein a detection of motion to the system is indicative of an attempt to prevent the tire sensor from detecting the presence of the at least one of flame and smoke within the volume. It has been known in the art to use shock or motion sensors for detecting tampering to a housing or structure of a sensing device or apparatus.

**Rodhall et al.** in "Portable security system for outdoor sites" teach of using a motion sensor (14) and shock sensor (88) for detecting tampering with the portable alarm unit (10) as seen in Figures 1, 3; col. 7, lines 61-67.

In view of Rodhall teaching, it would have been obvious to one of ordinary skilled in the art to alternatively incorporate the motion or shock sensors into the fire sensing

apparatus of Deacy-Kaufman in order to provide effective mechanism for detecting tampering with the apparatus.

**Regards claim 38,** referring to claim 5 for explanation.

**Regards claim 51,** referring to claim 17 for explanation.

**Regards claim 55,** referring to claim 22 for explanation.

4. Claims 11-15, 30-34, 44-48, 63-67 rejected under 35 U.S.C. 103(a) as being unpatentable over **Deacy** in view of **Kaufman and Weiss et al.** (US 5905438).

**Regards claim 11,** Deacy and Kaufman both fail to disclose the transmitter transmits a status message to the remote monitor at periodic intervals.

Weiss et al. in "Hazardous remote detecting system" teach of hazardous detecting units (20) for detecting smoke, gas and flame that transmit a status message (battery status) to a remote monitoring unit (50) at periodic intervals to conserve energy as seen in Figures 1-3; col. 5, lines 1-67; col. 6, lines 1-67.

In view of Weiss teaching, it would have been obvious to one of ordinary skilled in the art to have the fire sensing apparatus of Deacy and Kaufman to periodically transmit a status message to the remote monitoring unit for conserving power as well as reporting conditions from the sensor units.

**Regards claim 12,** Deacy and Kaufman fail to disclose an absence of receipt of the status message (battery level) by the remote monitor within the periodic interval is indicative of an alarm condition (low battery) associated with the apparatus, and wherein an absence of receipt of the status message by the remote monitor within the

periodic

interval generates at least one of an audible alarm, a visual alarm.

Weiss disclose that an absence of receipt of the status message (battery level) by the remote monitor within the periodic interval is indicative of an alarm condition (low battery) associated with the apparatus, and wherein an absence of receipt of the status message by the remote monitor within the periodic interval generates at least one of an audible alarm, a visual alarm and a tactile alarm at a location of the remote monitor to indicate the alarm condition to the remote monitor as seen in col. 7, lines 26-64.

In view of Weiss teaching, it would have been obvious to one of ordinary skilled in the art to incorporate the absence of the receipt of the status message by the remote monitor within periodic interval is indicative of an alarm condition as a way of communication to ensure proper functioning of the detecting unit.

**Regards claim 13,** Weiss disclose the status message includes information for identifying a location of a source (detecting unit ID) of the status message to the remote monitor as seen in col. 7, lines 10-20.

In view of Weiss teaching, it would have been obvious to one of ordinary skilled in the art to incorporate the status message includes information for identifying a location of a source of the status message to remote monitoring unit for identifying a location of transmitting source to a monitoring person.

**Regards claim 14,** Weiss disclose the status message includes information for identifying an existence of an alarm condition (battery level) to the remote monitor as seen in col. 7, lines 1-44.

**Regards claim 15,** Weiss disclose the status message includes information for identifying a type of alarm condition (battery level) to the remote monitor.

**Regards claim 30,** Deacy and Kaufman both fail to disclose the transmitter transmits a status message to the remote monitor at periodic intervals.

Weiss et al. in "Hazardous remote detecting system" teach of hazardous detecting units (20) for detecting smoke, gas and flame that transmit a status message (battery status) to a remote monitoring unit (50) at periodic intervals to conserve energy as seen in Figures 1-3; col. 5, lines 1-67; col. 6, lines 1-67.

In view of Weiss teaching, it would have been obvious to one of ordinary skilled in the art to have the fire sensing apparatus of Deacy and Kaufman to periodically transmit a status message to the remote monitoring unit for conserving power as well as reporting conditions from the sensor units.

**Regards claim 31,** Weiss disclose the status message includes information for identifying a location of a source (detecting unit ID) of the status message to the remote monitor as seen in col. 7, lines 10-20.

In view of Weiss teaching, it would have been obvious to one of ordinary skilled in the art to incorporate the status message includes information for identifying a location of a source of the status message to remote monitoring unit for identifying a location of transmitting source to a monitoring person.

**Regards claim 32,** Weiss disclose the status message includes information for identifying an existence of an alarm condition (battery level) to the remote monitor as seen in col. 7, lines 32-44.

**Regards claim 33,** Weiss disclose the status message includes information for identifying a type of alarm condition (battery level, alarm condition) to the remote monitor as seen in col. 6, lines 43-67; col. 7, lines 1-25.

**Regards claim 34,** Deacy and Kaufman fail to disclose an absence of receipt of the status message (battery level) by the remote monitor within the periodic interval is indicative of an alarm condition (low battery) associated with the apparatus, and wherein an absence of receipt of the status message by the remote monitor within the periodic interval generates at least one of an audible alarm, a visual alarm.

Weiss disclose that an absence of receipt of the status message (battery level) by the remote monitor within the periodic interval is indicative of an alarm condition (low battery) associated with the apparatus, and wherein an absence of receipt of the status message by the remote monitor within the periodic interval generates at least one of an audible alarm, a visual alarm and a tactile alarm at a location of the remote monitor to indicate the alarm condition to the remote monitor as seen in col. 7, lines 26-64.

In view of Weiss teaching, it would have been obvious to one of ordinary skilled in the art to incorporate the absence of the receipt of the status message by the remote

monitor within periodic interval is indicative of an alarm condition as a way of communication to ensure proper functioning of the detecting unit.

**Regards claim 44**, referring to claim 11 for explanation.

**Regards claim 45**, referring to claim 12 for explanation.

**Regards claim 46**, referring to claim 13 for explanation.

**Regards claim 47**, referring to claim 14 for explanation.

**Regards claim 48**, referring to claim 15 for explanation.

**Regards claim 63**, referring to claim 30 for explanation.

**Regards claim 64**, referring to claim 31 for explanation.

**Regards claim 65**, referring to claim 32 for explanation.

**Regards claim 66**, referring to claim 33 for explanation.

**Regards claim 67**, referring to claim 34 for explanation.

#### ***Allowable Subject Matter***

5. Claims 7, 24, 40, 57 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Zoratti (US 6816072) discloses a fire hydrant anti-tamper device.

Sivathanu et al. (US 6111511) disclose a flame and smoke detector.

Bruins et al. (US 5907279) disclose initialization of a wireless system.

Agata (US 5339072) discloses fire-detector with anti-tampering measures.

Bridges (US 5396221) discloses a smoke detector disguised as a Christmas tree ornament.

Jameson et al. (US 4529976) disclose a smoke detector masking shield.

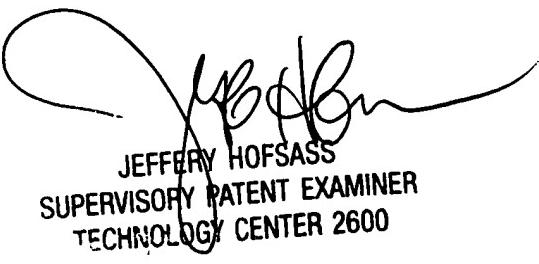
Bellinghausen et al. (US 4092641) disclose a security lock switch.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lam P. Pham whose telephone number is 571-272-2977. The examiner can normally be reached on 9AM-6PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffery A. Hofsass can be reached on 571-272-2981. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lam Pham  
August 5, 2005.

  
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